AMENDMENTS TO THE CLAIMS

1-3. (cancel)

4. (currently amended) ~~A composition of claim 1 wherein the substance comprises an~~ An antibody or fragment thereof that specifically binds to a ~~161P2F10B related~~ protein at least 90% homologous to SEQ ID NOS: 743 or 745.

5. (currently amended) The antibody or fragment thereof of claim 4, which is a monoclonal antibody.

6. (currently amended) The antibody or fragment thereof of claim 5, wherein the ~~A recombinant protein comprising an antigen-binding region of a monoclonal antibody of claim 5~~ monoclonal antibody is recombinantly produced.

7. (currently amended) The antibody or fragment thereof of claim 4, wherein the antibody or fragment thereof ~~which~~ is labeled with a detectable marker.

8. (cancelled)

9. (currently amended) The antibody or fragment thereof ~~of an antibody~~ of claim 4, wherein the fragment thereof is selected from the group consisting of ~~which is an~~ Fab, F(ab')2, Fv ~~or~~ and sFv fragment.

10. (currently amended) The antibody or fragment thereof of claim 4, wherein the antibody ~~which~~ is a human antibody, a humanized antibody or a chimeric antibody.

11. (currently amended) A non-human transgenic animal that produces an antibody that specifically binds to a protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~of claim 4~~.

12. (currently amended) A hybridoma that produces ~~an antibody of claim 5~~ a monoclonal antibody that specifically binds to a protein having at least 90% homologous to SEQ ID NOS: 743 or 745.

13. (currently amended) The antibody or fragment thereof of claim 6, wherein the monoclonal antibody is a ~~[[A]]~~ single chain monoclonal antibody ~~that immunospecifically binds to a 161P2F10B-related protein, and that comprises the variable domains of the heavy and light chains of a monoclonal antibody of claim 5~~.

14. (currently amended) A vector comprising a polynucleotide that encodes a single chain monoclonal antibody ~~of claim 13~~ that specifically binds to a protein having at least 90% homology to SEQ ID NOS: 743 or 745.

15. (currently amended) A method of delivering ~~a cytotoxic agent or a diagnostic~~ an agent to a cell that expresses 161P2F10B, ~~said method~~ comprising:

providing the ~~cytotoxic~~ agent ~~or the diagnostic agent~~ conjugated to an antibody or fragment thereof that specifically binds to a protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~of claim~~ ; and,

exposing the cell to the antibody-agent or fragment-agent conjugate.

16-64. (cancelled)

65. (currently amended) A method of generating a mammalian immune response directed to 161P2F10B (SEQ ID NOS: 743 or 745), ~~the method~~ comprising:

exposing cells of the mammal's immune system to an immunogenic portion of

a) a protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~an 161P2F10B-related protein~~ and/or

b) a nucleotide sequence that encodes said protein,

whereby an immune response is generated to 161P2F10B.

66. (currently amended) The ~~A~~ method ~~of inducing an immune response~~ of claim 65, ~~said method comprising:~~

~~provid ng~~ wherein the protein having at least 90% homology to SEQ ID NOS: 743 or 745, ~~a 161P2F10B-r lated~~ wherein the protein ~~that~~ comprises at least one T cell or at least one B cell epitope;

~~contac ing the epitope with a mammalian immune system T cell or B cell respectively, whereby the T cell or B cell is induced~~.

67. (currently amended) The method of claim 66 wherein the immune response comprises ~~sys em cell is a B cell, whereby the~~ an induced B cell that generates antibodies that specifically bi ~~id~~ the protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~to the 161P2F10B-r lated protein~~.

68. (currently amended) The method of claim 66 wherein the immune response comprises sys ~~em cell is a T cell that is~~ activation of a cytotoxic T cell (CTL), whereby the activated CTL kills an autologous cell that expresses the protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~161P2F10B-related protein~~.

69. (currently amended) The method of claim ~~66~~ 68 wherein the immune response comprises ~~sys em cell is a T cell that is~~ a helper T cell (HTL), whereby the activated HTL secretes cytokines that facilitate the cytotoxic activity of a cytotoxic T cell (CTL) or the antibody producing activity of a B cell.

70. (currently amended) An assay for detecting the presence of a ~~161P2F10B-related~~ a protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~or polynucleotide~~ in a biological sample and a normal sample obtained from a patient who has or who is suspected of having cancer, comprising ~~st ps of~~:

contac ing the biological sample and the normal sample with an antibody or fragment thereof that specifically binds to the protein having at least 90% homology to SEQ ID NOS: 743 or 745 ~~a substan e of claim 1 that specifically binds to the 161P2F10B-related protein or polynucleotid , respectively~~; and,

determining if the antibody binds to the biological sample or the normal sample, whereby binding indicates the presence of the protein. ~~that there is a complex of the substance and 161P2F10B related protein or the substance and 161P2F10B related polynucleotide, respectively~~.

71-74. (cancel)

75. (currently amended) A method for detecting expression levels of a ~~monitoring~~ 161P2F10B gene product in a biological sample and a normal sample obtained from a patient who has or who is suspected of having cancer, ~~the method~~ comprising:

determining expression levels of the ~~status of~~ 161P2F10B gene product ~~products expressed by cells in a tissue sample from an individual~~ in the biological sample and the normal sample obtained from the patient; and

comparing the ~~status so determined to the status of 161P2F10B gene products in a corresponding normal sample; and,~~ expression levels of the 161P2F10B gene product detected in the biological sample and the normal sample obtained from the patient, wherein the 161P2F10B gene product is selected from the group consisting of 161P2F10B mRNA or a protein that is at least 90% identical to SEQ ID NOS 743 or 745.

~~identifying the presence of aberrant 161P2F10B gene products in the sample relative to the normal sample~~.

76. (currently amended) ~~A method of monitoring the presence of cancer in an individual comprising: performing the~~ The method of claim 75 whereby the presence of elevated gene product 161P2F10B mRNA or 161P2F10B protein in the ~~test~~ biological sample relative to the normal ~~tissue~~ sample indicates the presence ~~or status~~ of a cancer in the biological sample.

77. (currently amended) The method of claim 76 wherein the cancer occurs in a tissue ~~set forth in Table I~~ selected from the group consisting of breast, colon, kidney, lung, ovary, pancreas, and prostate.

78. (new) The antibody or fragment thereof of claim 4 which is labeled with an agent.

79. (new) The antibody or fragment thereof of claim 78, wherein the agent is a diagnostic agent or a cytotoxic agent.

80. (new) The antibody or fragment thereof of claim 79, wherein the cytotoxic agent is selected from the group consisting of radioactive isotopes, chemotherapeutic agents and toxins.

81. (new) The antibody or fragment thereof of claim 80, wherein the radioactive isotope is selected from the group consisting of At^{211}, I^{131}, I^{125}, Y^{90}, Re^{186}, Re^{188}, Sm^{153}, Bi^{212}, P^{32} and radioactive isotopes of Lu.

82. (new) The antibody or fragment thereof of claim 80, wherein the chemotherapeutic agent is selected from the group consisting of taxol, actinomycin, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, gelonin, and calicheamicin.

83. (new) The antibody or fragment thereof of claim 80, wherein the toxin is selected from the group consisting of diphtheria toxin, enomycin, phenomycin, Pseudomonas exotoxin (PE) A, PE40, abrin, abrin A chain, mitogellin, modeccin A chain, and alpha-sarcin.

84. (new) The method of claim 15, which is labeled with an agent.

85. (new) The method of claim 15, wherein the agent is a diagnostic agent or a cytotoxic agent.

86. (new) The method of claim 85, wherein the cytotoxic agent is selected from the group consisting of radioactive isotopes, chemotherapeutic agents and toxins.

87. (new) The method of claim 86, wherein the radioactive isotope is selected from the group consisting of At^{211}, I^{131}, I^{125}, Y^{90}, Re^{186}, Re^{188}, Sm^{153}, Bi^{212}, P^{32} and radioactive isotopes of Lu.

88. (new) The method of claim 86, wherein the chemotherapeutic agent is selected from the group consisting of taxol, actinomycin, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, gelonin, and calicheamicin.

89. (new) The method of claim 86, wherein the toxin is selected from the group consisting of diphtheria toxin, enomycin, phenomycin, Pseudomonas exotoxin (PE) A, PE40, abrin, abrin A chain mitogellin, modeccin A chain, and alpha-sarcin.